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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,109	05/15/2001	Ronald S. Cok	82687THC	1762

7590 09/25/2003  
Thomas H. Close  
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EXAMINER

BELL, PAUL A

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 09/25/2003 7

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/858,109

Applicant(s)

COK, RONALD S.

Examiner

PAUL A BELL

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9 and 11-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-9, 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen et al. (6,414,661) in view of Hunter (6,441,560) and Yano et al. (6,317,138).

With regard to claim 1 Shen et al. teaches an active matrix OLED flat-panel color display (column 1, lines 10-49), comprising: a) a plurality of light emitting elements and associated control circuits (figure 2, items 10 and 14); b) a programmable power supply connected to the control circuits (figure 2 and 3); c) a sensor for sensing the light to produce a feedback signal (figure 4a and column 9, lines 10-47); and d) a display controller responsive to the respective feedback signal for programming the programmable power supply to compensate for changes in the light output from the light emitting elements (figure 4a, item 30).

Shen et al. does not teach, “plurality of light emitting elements for emitting light of **different** colors” and a **separate** sensor for sensing **each color** of light emitted by the display to produce a feedback signal for each color”. Shen instead illustrates all the light emitting elements

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having only one color and one common sensor which is moved to look at each light emitting element.

Hunter teaches the concept of having “a separate sensor for each light emitting element” also used for control (See Hunter figure 3, items 45 and 20, column 5, lines 52-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Shen et al. apparatus to have a separate sensor for each light emitting element mounted on a common substrate as taught by Hunter because one would be motivated to replace a moving single sensor with stationary multiple sensors to speed up and facilitate real-time calibration and control.

Yano et al. Teaches the concept of having, “plurality of light emitting elements for emitting light of **different** colors” (See Yano et al. Figures 2a, and 2b column 3, lines 30-34 and column 4, lines 27-31) is well known in the prior art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Shen et al. apparatus as modified by Hunter to have “plurality of light emitting elements for emitting light of **different** colors”, as taught by Yano et al. because one would be motivated to produce a multi color display over a single color display in order to display more than one color in a multi color display also multi color displays are more commercially marketable.

With regard to claim 3 Shen et al. as modified by Hunter and Yano et al. teaches further comprising separate programmable power supplies for each color in the flat-panel display (Shen

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et al. teaches a separate power line for each LED which are provided by a provided by a separate power supplies it reads on this broad language)

With regard to claim 8 Shen et al. as modified by Hunter and Yano et al. teaches the display claimed in claim 1, wherein the programmable power supply is addressable as a storage element (It is inherent that which can be programmed has storage or it could not be programmed).

With regard to claim 9 since Shen et al. as modified by Hunter and Yano et al. was found to suggest the apparatus claim 1 above and therefore the corresponding method claim 9 would be obvious.

With regard to claim 11 Shen et al. as modified by Hunter and Yano et al. teaches the method claimed in claim 9, wherein the display includes a controller having a lookup table for receiving device independent code values and producing device dependent code values and further comprising the step of calibrating the controller by changing the lookup table ( See Shen et al. figure 7 and 8 and it is inherent that when every pixel is calibrated as taught by Shen et al. that the calibrated values are stored in a table as broadly claimed).

With regard to claim 12 Shen et al. as modified by Hunter and Yano et al was shown in 11 above to cover most of these limitations in addition he is now claiming, “changing the lookup table to correct for the color balance of the display” (It is inherent that when each led is calibrated that the color balance is corrected).

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With regard to claims 4 or 5 Shen et al. as modified by Hunter and Yano et al. does not teach the display claimed in claim 1, wherein the programmable power supply is on a common substrate with the display as in 4 or wherein the programmable power supply is on a separate substrate from the display as in 5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to locate the power supply on either the display substrate or a separate substrate because the mere “shift in location of a part”, such as the location of the power supply can not be used to distinguish over the prior art without a showing of “unexpected results”. (In re Japikse 86 USPQ 70 ccpa 1950). A motivation for placing a power supply on a separate substrate would be to reduce weight and size of a separate display. A motivation for putting a power supply on the display substrate would be to reduce power loss due to not having long wires delivering the power.

With regard to claims 6 and 7, Shen et al. as modified by Hunter and Yano et al. does not teach the display claimed in claim 1, wherein the programmable power supply is in a common package with the display or wherein the programmable power supply is in a separate package from the display.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to locate the power supply in either a common package with the display or in a separate package from the display because the mere “shift in location of a part”, such as the location of the power supply can not be used to distinguish over the prior art without a

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showing of "unexpected results" (In re Japikse 86 USPQ 70 ccpa 1950). A motivation for putting a power supply in a separate package would be to reduce weight and size of the display on desk. A motivation for placing a power supply in a common package with display would be to reduce power loss due to not having long wires delivering the power.

With regard to claims 13-16 Shen et al. as modified by Hunter and Yano et al. was shown above to teach all the claimed limitations.

### *Conclusion*

3. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras, can be reached at (703) 305-9720.

Any response to this action should be mailed to: Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or faxed to: (703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

*Paul Bell*

Paul Bell

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15 September 2003

*Chanh Nguyen*  
CHANH NGUYEN  
PRIMARY EXAMINER